NPDES PERMIT NO. NM0020273
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

1. APPLICANT

City of Raton
Raton Water Works
P.O. Box 99
Raton, NM 87740

2. ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

3. PREPARED BY

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4. DATE PREPARED

August 4, 2008

5. PERMIT ACTION

Proposed reissuance of the current National Pollutant Discharge Elimination System (NPDES) permit issued August 26, 2003, with an effective date of October 1, 2003, and an expiration date of September 30, 2008.

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed in Title 40, Code of Federal Regulations, revised as of June 6, 2008.

6. DISCHARGE LOCATION

As described in the application, the discharger is a publicly owned treatment works (POTW). The site is located at 1750 East Hereford Avenue, Raton, in Colfax County, New Mexico. The facility discharge is to Doggett Creek, thence to Raton Creek, thence to Chicorica Creek, thence to Canadian River. The Doggett Creek is an unclassified ephemeral water. The single outfall of the facility is on Doggett Creek located at:

Latitude 36° 51' 35" North, Longitude 104° 25' 53" West

7. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (NM WQS), 20.6.4 NMAC, as amended through August 1, 2007.

The designated uses of Doggett Creek in Water Quality Segment No. 20.6.4.97, are wildlife habitat, livestock watering, limited aquatic life and secondary contact. The CWA sections 101(a)(2) and 303(c) require water quality standards to provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, wildlife, and recreation in and on the water, functions commonly referred to as “fishable/swimmable” uses. EPA's current water quality regulation effectively establishes a rebuttable presumption that “fishable/swimmable” uses are attainable and therefore should apply to a water body unless it can be demonstrated that such uses are not attainable. EPA does not expect the State to adopt uses for ephemeral waters that cannot be attained, but in those instances, the State must submit a Use Attainable Assessment (UAA) to support an aquatic life designation that does not meet the CWA §101(a)(2) objective as required by 40 CFR 131.10(j)(1). Prior to submittal of UAA, the designated use for aquatic life is assumed for the receiving water.

8. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code 4952, the applicant currently operates a municipal wastewater treatment facility.

The facility has a design flow capacity of 0.90 million gallons per day (MGD). The facility was ranked as major back to 1978 because a design flow of 1.2 MGD was reported in the short Form A. The facility has been upgraded since April 2007 and information available to EPA indicates that the design flow of the new upgraded facility is 0.9 MGD. Because the facility has been upgraded and the testing results of Whole Effluent Toxicity (WET) have demonstrated in compliance with the WET limits since 2007, EPA is downgrading the facility from major to minor.

9. EFFLUENT CHARACTERISTICS

The facility submitted information in its application that describes the nature of the permitted discharge. The following is a summarization of effluent characteristics.

Parameter	Avg. Monthly (mg/l unless noted)	Max. Daily
Flow, million gallons/day (MGD)	0.52	0.81
pH, minimum, standard units (su)	N/A	7.01 su
pH, maximum, standard units (SU)	N/A	7.28 su
Biochemical Oxygen Demand, 5-day ($BOD_{(5)}$)	3.65	11.70
Fecal Coliform (FCB) (bacteria/100 ml)	32.22	300.00
Total Suspended Solids (TSS)	6.19	25.30
Ammonia (as N)	0.39*	
Total Residual Chlorine	< 0.01	
Dissolved Oxygen	5.7 – 8.2	
Nitrate and Nitrite	< 0.5*	
Oil and Grease	< 5*	
Total Phosphorus	2.2*	
Total Dissolved Solids	640*	

* Effluent sample on June 30, 2008

10. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

The proposed effluent limitations for those pollutants proposed to be limited are based on regulations promulgated at 40 CFR 122.44. The draft permit limits are based on either technology-based effluent limits pursuant to 40 CFR 122.44(a), on BPJ in the absence of guidelines, NM WQS and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

a. Reason For Permit Issuance

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). The initial permit renewal application was received on April 7, 2008.

b. Operation and Reporting

(1) Regulatory Basis

At a minimum, the facility will be required to meet to the equivalent of "secondary treatment" for domestic sewage, found at 40 CFR 133.102.

(2) Operation and Reporting

The applicant operates a Sequencing Batch Reactor system and is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

(3) Sewage Sludge Practices

Sludge produced at the treatment plant is land applied on city owned property. The facility is not required to submit annual sludge report.

(4) Waste Water Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The facility shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility.

(5) Industrial Wastewater Contributions

Based on information provided by the applicant, the facility does not receive significant industrial wastewater. EPA has determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been included in the permit.

c. Technology Based Effluent Limitations/Conditions

Regulations promulgated at 40 CFR 122.44(a) require that technology-based effluent limitations be placed in NPDES permits based on effluent limitations guidelines where applicable, on best professional judgment (BPJ) in the absence of guidelines, or on a combination of the two.

Limitations on 5-day biochemical oxygen demand, (BOD_5), or 5-day carbonaceous biochemical oxygen demand, ($CBOD_5$), and total suspended solids, (TSS), are in accordance with "secondary treatment requirements" established at 40 CFR 133.102 (a) and 133.102 (b). Limitations on maximum and minimum pH are in accordance with 40 CFR 133.102(c).

d. Water Quality Based Limitations

The NM WQCC adopted new WQS for the State of New Mexico. The revised WQS as amended through August 1, 2007, are available on the NMED's website at http://www.nmenv.state.nm.us/swqb/Standards/20.6.4NMAC.pdf. The WQS have been approved by EPA in accordance with Section 303 of the CWA.

e. Post Third Round Policy and Strategy

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR 9016-9019, 3/9/84)." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992, and the EPA Region 6 WET Permitting Strategy on May 1, 2005. The Regional policy and strategies are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in nonconformance with the provisions of 40 CFR 122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

f. Implementation

The Region is currently implementing its post third round policy in conformance with the Regional strategies. The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

g. Reasonable Potential

All applicable facilities are required to fill out appropriate sections of the Form 2A, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to Publicly Owned Treatment Works (POTW's), but also to facilities that are similar to POTW's , but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL.

The amount of information required for minor facilities was limited to specific sections of these forms, because they are unlikely to discharge toxic pollutants in amounts that would impact state water quality standards. Supporting information for this decision was published as "Evaluation of the Presence of Priority Pollutants in the Discharges of Minor POTW's," June 1996, and was sent to all state NPDES coordinators by EPA Headquarters. In this study, EPA collected and evaluated data on the types and quantities of toxic pollutants discharged by minor POTW's of varying sizes from less than 0.1 MGD to just under 1 MGD. The Study consisted of a query of the EPA Permit Compliance System (PCS) database from 1990 to present, an evaluation of minor POTW data provided by the State agencies, and on-site monitoring for selected toxics at 86 minor facilities across the nation.

Due to the limited information required by the application and effluent data for human health-based parameters reported in accordance with the current permit requirements, the Agency has determined that no reasonable potential exists for this discharge to violate applicable NM WQS for the protection of designated uses of receiving water, beyond pH and E. coli.

h. Final Effluent Limitations

Technology-based effluent limitations are established in the proposed permit for the following pollutants; pH, BOD_5, and TSS. Because 0.9 MGD was used to calculate the loads of BOD and TSS in the current permit, no changes are made. Water quality-based

effluent limitations are established in the proposed permit for the following pollutants: E. coli and pH. Effluent limitations and monitoring requirements for fecal coliform are replaced with E. coli because of new State WQS. Effluent limitations and monitoring requirements for total residual chlorine are removed because the facility is using ultraviolet (UV) for disinfection.

The draft permit also deletes monitoring requirements of human health-based pollutants of concern from the existing permit because effluent data have demonstrated no reasonable potential.

i. Monitoring Frequency

Regulations require that permits establish monitoring requirements to yield data representative of the monitored activity (40 CFR 122.48(b)) and to assure compliance with permit limitations (40 CFR 122.44(i)(1)). The monitoring frequencies are based on BPJ, taking into account the nature of the facility and its design flow and the previous permit. Monitoring frequencies of 1/week for BOD and TSS in the current permit are retained and a frequency of 1/week is established for E. coli.

j. Whole Effluent Toxicity (WET) Limit

Acute WET limits for Daphnia pulex and Pimephales promelas are established in the current permit. According to WET testing results submitted with the application, the monitoring frequency for Daphnia pulex is retained 1/quarter for eight quarters and then reduced to 1/6 months for remainder of the permit term if all tests pass, and the frequency for Pimephales promelas is reduced to 1/year. Because the facility actually discharges much less than 24 hours a day and the upgraded facility has equalization basin, the draft permit proposes to change the sample type from 24-hr composite to 3-hr composite which shall reflect the length of batch discharge more accurately.

k. 303(d) Impaired Water

Raton Creek between Chicorica Creek to headwaters is not supporting marginal warmwater aquatic life and the probable cause of impairment is nutrients. Prior to the development of total maximum daily loads (TMDL), the facility will not be authorized to increase the flow rate or nutrient loads to the receiving water- discharges at the existing quality for nutrients. Quarterly monitoring and reporting requirements for total nitrogen and total phosphorus are proposed to collect more data prior to the establishment of TMDLs.

11. SIGNIFICANT CHANGES

There are significant changes of permit conditions from the existing permit issued August 26, 2003, and expired September 30, 2008:

(i) Add effluent limitations and monitoring requirements for E. coli;
(ii) Delete effluent limitations and monitoring requirements for fecal coliform;
(iii) Delete monitoring requirements for all human health-based parameters;

(iv) Add monitoring requirements for total nitrogen and total phosphorus;
(v) Reduce testing frequency for Whole Effluent Toxicity limits;
(vi) Change sample types for WET;
(vii) Delete annual reporting requirement for sludge management; and
(viii) Change DMR reporting requirements from major to minor.

12. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 "Antidegradation Policy and Implementation Plan" sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated uses.

13. ANTIBACKSLIDING

Effluent limitations and monitoring requirements for fecal coliform are removed in accordance with State of New Mexico's new WQS. Effluent limitations and monitoring requirements for E. coli are used to monitor and control bacterial. Therefore, the removal of fecal coliform is in compliance with EPA's antibacksliding policy.

14. ENDANGERED SPECIES CONSIDERATIONS

Five species in Colfax County are listed as Endangered or Threatened, according to the U.S. Fish & Wildlife Service's (USFWS) website, http://www.fws.gov/southwest/es/NewMexico/SBC_view.cfm. The lone aquatic specie is the Arkansas River shiner. Three of the species are avian and include the piping plover, Mexican spotted owl, and the southwestern willow flycatcher. Additionally, the black footed ferret is listed as endangered. Based on the evaluations made by EPA when EPA proposed the permit renewal in 2003, EPA has determined that the environmental baseline has not been changed and, based on the information available to EPA, that the reissuance of this permit will have ***no effect*** on these federally listed threatened or endangered species.

15. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since construction activities are not planned in the reissuance.

16. CERTIFICATION

The permit is in the process of certification by the State agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

17. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

18. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

a. Application(s)
EPA Application Form 2A signed and received April 7, 2008.

b. State of New Mexico References
New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 1, 2007.

c. Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, May 5, 1995.

d. Narrative Toxics Implementation Guidance – Whole Effluent Toxicity, State of New Mexico, December 16, 2005.